

HW1

Due date: 04/06/2018

1. Durrett exercise 5.3.12
2. Durrett exercise 5.3.13
3. Durrett exercise 5.4.5
4. Durrett exercise 5.4.6
5. Suppose that $\{X_n\}$ is an integrable \mathcal{F}_n -adapted sequence such that $E(X_\tau) = E(X_0)$ for every bounded \mathcal{F}_n -stopping time τ . Show that $\{X_n\}$ must be a \mathcal{F}_n -martingale
6. Durrett exercise 5.5.1